

Date: Thursday, 3/13/2008 10:20:09 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawin'g Name	: TOW RING
Job Number	: 37929		
Estimate Number	: 10396	Part Number	: D2968041
P.O. Number	:	Drawing Number	: D2968 REV C
This Issue	: 3/13/2008 S.O. No. :	Project Number	: N/A
Prsht Rev.	: NC	Drawing Revision	: C
First Issue	: / / Type : MACHINED PARTS	Material	:
Previous Run	: 36332	Due Date	: 4/4/2008
Written By	: <u>18 08 03 13</u>	Qty:	<u>35</u> Um: Each
Checked & Approved By	:		
Comment	: Est: C 03.04.11 Reformat, Incorporated D2968-1/-5 KJ/RF est D 07.07.06 rev C dwg EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	37929A	STEM
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Comment: Sub-Component STEM

D2968-1 B B 36332A ✓ B 37929A → 25xSP 08-04-02

2.0	37929B	RING
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Comment: Sub-Component RING

D2968-5 B B 36332B ✓ B 37929B → 25xSP 08-04-02

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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Comment: LARGE FABRICATION RESOURCE 1

Weld D2968-1 & D2968-5 as per Dwg D2968 & QSI 004 using 4130 welding rod Identify as D2968-041

Batch: M 19317SP 08-04-03

(10x)
(35x)

4.0	QC9	VISUAL WELDING INSPECTION
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Comment: VISUAL WELDING INSPECTION

D 08-04-08

(35)

5.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

SP 08/04/08 (35)

center

6.0	OUTSIDE SERV.30	OUTSIDE SERVICES-MACH
-----	-----------------	-----------------------



Comment: Sub-Contracting PURCHASING

Issue P/O: 10091

Description: D2968-041 to heat treat to ultimate tensile strength

125ksi as per Dwg D2968

Conformity sheet required

(35)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 3/13/2008 10:20:09 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TOW RING

Job Number: 37929

Part Number: D2968041

Job Number:



Seq. #:

Machine Or Operation:

Description:

Issue P/O: 6092

Cad Plate per QQ-P-416F Class I Type II

Conformity sheet required

CL 08/04/08

(35)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure certificate of conformity is attached

8/3/13 (35)

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT CAD PLATE

8/5/14 (35)

9.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

DO NOT POWDER COAT THREADS

M107925

M-1 08/0

30 min
20/05/2008
S.255 09.06
#1 01.8 F
#2 B37929 F
#3 D296804 F
#4

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

8/5/20 (35)

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: ST 464

AS 08/05/21 (35)

12.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/05/22

Job Completion



umf 08-05-21

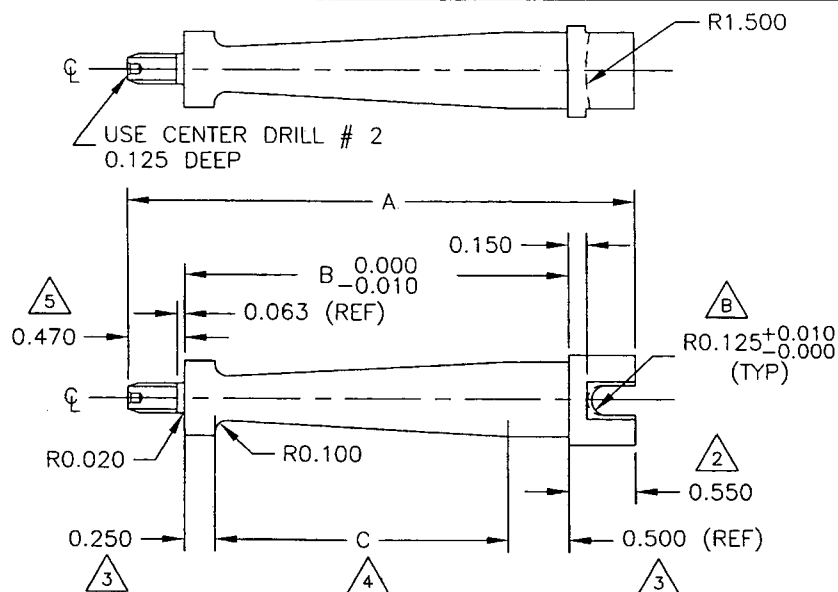
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



PART NUMBER	A	B	C
D2968-1	5.040	4.020	3.270
D2968-3	4.200	3.180	2.430

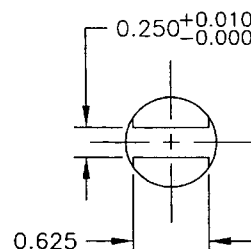
D2968-1/-3 STEM

D2968-1 AND D2968-3 STEM:

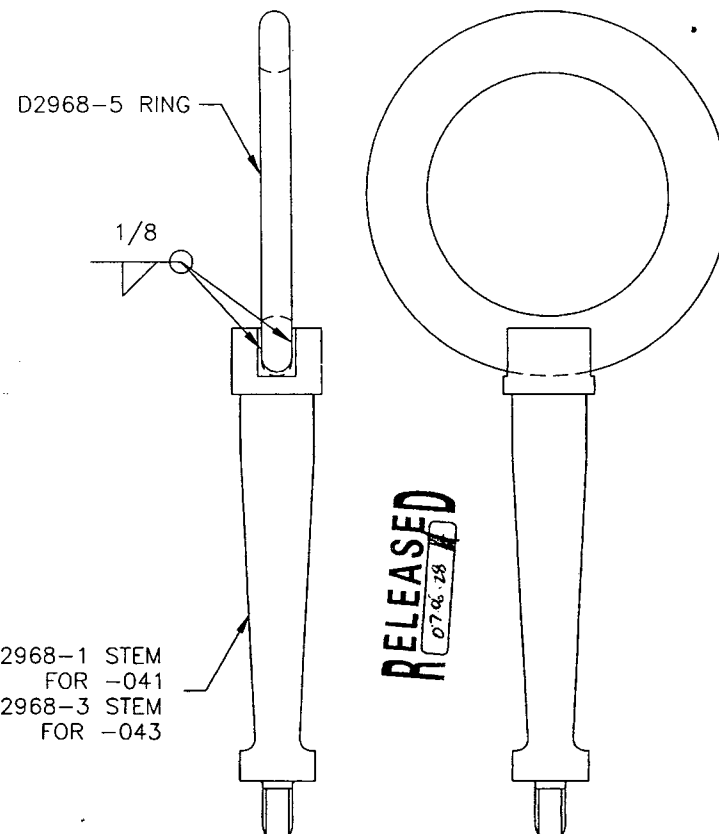
- 1) MATERIAL: AISI 4130N ROUND BAR PER MIL-S-6758
OR AMS 6348/6370/6528
(REF DART SPEC M4130N-RX.XXX)
- 2) $\phi 0.750$ O.D.
- 3) $\phi 0.625$ O.D.
- 4) MACHINE UNIFORM TAPER FROM $\phi 0.363$ O.D.
TO $\phi 0.625$ O.D.
- 5) 1/4-28 UNF THREAD WITH 0.063 GRIP
- 6) MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
UNLESS OTHERWISE INDICATED
- 7) ALL DIMENSIONS ARE IN INCHES
- 8) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED

D2968-5 RING:

- 9) MATERIAL: AISI 4130N TUBING PER MIL-T-6736
OR AMS 6360/6361/6362/6371/6373/6374
(REF DART SPEC M4130NT3000W500)
- 10) ALL DIMENSIONS ARE IN INCHES
- 11) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

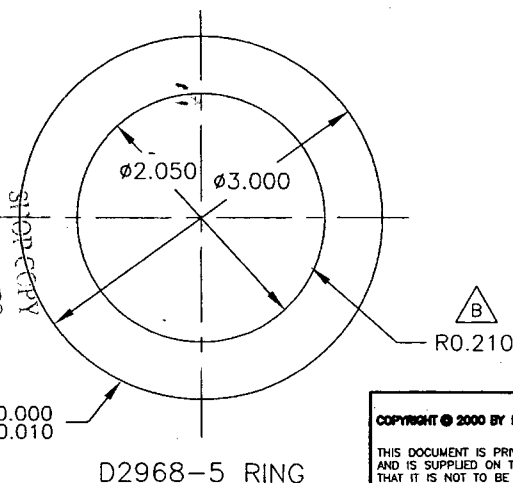


USE D2968-1 STEM
FOR -041
USE D2968-3 STEM
FOR -043



D2968-041 AND D2968-043 TOW RING:

- 12) WELD PER QSI 004 ON ALL EDGES BETWEEN STEM AND RING
- 13) HEAT TREAT TO MIN ULTIMATE TENSILE STRENGTH OF 125 KSI
- 14) FINISH: CAD PLATE ENTIRE ASSEMBLY PER
QQ-P-416F CLASS I TYPE II
POWDER COAT WHITE (REF 4.3.5.2) PER DART
QSI 005 4.3 (EXCEPT THREADS)



D2968-5 RING

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

C	07.04.17	2.050 WAS 2.000, UPDATE NOTES
B	00.05.31	R0.125 AND R0.210 WERE 0.060 x 45°
A	00.03.07	NEW ISSUE
DESIGN	<i>[Signature]</i>	DRAWN BY <i>[Signature]</i>
CHECKED	<i>[Signature]</i>	APPROVED <i>[Signature]</i>
DATE	07.04.17	TOW RING
DART	DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA	
DRAWING NO.	D2968	REV. C
TITLE	TOW RING	SHEET 1 OF 1
SCALE	1:1	

Placage

Manco Complex

Siège social / Head Office Plan 1
4660 Hickmore 4670 Hickmore
Ville St-Laurent, Québec Ville St-Laurent, Québec
H4T 1K2 Fax: 514-355-5991
Fax: 514-355-8750

Plan 2
8001 Larrey
Anjou, Québec
Fax: 514-354-2937

BON DE LIVRAISON
PACKING SLIP

Tél.: 514-355-7867 / 1-877-355 7867

NAME: Dan Aerospace Ltd

E
X P E R I E N C E
P
D
I
E
T
A

UNIT 170
1370 ABERDEEN ST
HAWKSBURG CT 22114

MEMBER
SAME

[illegible]

MANCO
DOMPLEX

8895 Crescent 3
Anjou (Québec) H1J 1J36
Tél.: (514) 355-7867
Fax: (514) 355-8750

ATTN: CHANTOL

CERTIFICAT DE CONFORMITÉ
CERTIFICATE OF COMPLIANCE

#4010

DART Aerospace LTD

Client / Customer

906092

Votre # de commande / Your purchase order #

D2968-011 B37929

de la pièce / part

R110636

Notre # de bon de livraison / Our packing slip #

Inspecteur / Inspector	Renault			Date, équipe / Date, shift	12/05/08
Placage / Plating	QOP-416 F CLASS 1 T/R 77				
Quantité totale / Total quantity	35		Quantité inspectée / Inspected quantity	(35)	
Adhésion / Adhesion	BONNE				
Épaisseur / Thickness	L.C.D.		H.C.D.	Moy. / aver. 0.0005	
Coussures, taches / Leach, spots	NON		Rugosité / Roughness	NON	
Quantité approuvée / Approved quantity	35		Quantité rejetée / Rejected quantity		

Commentaires / Comments

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de
Signed on behalf of

MANCO
DOMPLEX

VAC AERO INT. INC.

Fax:905-865-8303

May 14 2008 02:45pm P002/003


VAC AERO
INTERNATIONAL INC.

RELEASE NOTE

GST No.: R105468102

OAK 97585-1


HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL (905) 827-4171 FAX (905) 827-7489

2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
CANADA L6L 6J4
TEL (905) 827-7377 FAX (905) 827-1380

QUEBEC DIVISION
7450 RUE VERTE STREET, ST. LAURENT, QUEBEC
CANADA H4S 1C3
TEL (514) 334-4240 FAX (514) 334-6269

05/05/2008

MM/DD/YYYY

PAGE: 1

BILL TO:

 LDAR01
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

 SHIP TO: MANCO COMPLEX
4660 HICKMORE
ST. LAURENT, QC

K6A 1K7

H4T 1K2

DATE SHIPPED	SHIP VIA	F.O.B.
05/02/2008	PUROLATOR #7684382	ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
PO00006091 *		COD

PART No.	DESCRIPTION	UOM	QTY ORD	QTY SHPD	TEST RESULTS
D2958-041	B37929 TOW RING	EA	35	35	
Process Specifications: Procedure: 4047 HEAT TREATED TO 125 KSI MIN. 100% HARDNESS TESTED PER ASTM E-18, HRC 26-32 * MATERIAL: 4130 P/S# 214596 * AMENDMENT #1, MAY 14, 2008					

100% HARDNESS TESTED

35 pcs → 29/30 HRC

I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Authorized Q.C. Inspector


 VACUUM BRAZING • HEAT TREATING • SPECIAL PROCESSING • FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL • PLASMA AND OTHER COATINGS


HEAT TREATING